PATENT

<u>Amendments t the Claims:</u> This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

- 1. (Currently Amended) Electromechanical valve actuator for internal combustion engines, equipped with a polarized electromagnet (700)—and with a mobile magnetic plate (706)—switching between a first position close to the electromagnet (700)—and a second position remote from the electromagnet (700), the switching times between these positions being determined depending on the operating state of the engine, characterized in that it comprises comprising said—means (704, 708) for supplying the electromagnet (700)—with a variable attracting current in the course of the approach of the plate (706)—to the electromagnet—(700).
- 2. (Currently Amended) Actuator in accordance with claim 1, characterized in that it comprises wherein the means for supplying the electromagnet with a variable attracting <u>current includes</u> means for reducing the attracting current as the plate (706) is approaching.
- 3. (Currently Amended) Actuator in accordance with claim 1 or 2, characterized in that it comprises wherein the means for supplying the electromagnet with a variable attracting current including means for inverting the direction of the current (i_b, i_h) supplying the electromagnet (700) when the plate (706) switches to the second position.
- 4. (Currently Amended) Actuator in accordance with claim 3, characterized in that it comprises wherein the means for supplying the electromagnet with a variable attracting current including means for controlling a current (i_b , i_h) generating a magnetic field of an intensity lower than or equal to the intensity of the magnetic field generated by a magnet (704) of the electromagnet when the current is inverted.
- 5. (Currently Amended) Actuator in accordance with one of the above claim[[s]] 1 or 2, characterized in that wherein the plate (706) moves into the vicinity of a second electromagnet in its second position and [[it]]the actuator further comprises means for simultaneously controlling the current supplies for [[each]]the first electromagnet and the second electromagnet.

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6. (Currently Amended) Actuator in accordance with one of the above claim[[s]] 1 or 2, characterized in that it comprises a wherein the electromagnet (700) is equipped with an E-shaped support having these branches, and includes a magnet (704) [[being]] located at the end of one of the branches of the support opposite in relation to the plate (706).

- 7. (Currently Amended) Actuator in accordance with one of the above claim[[s]] 1 or 2, characterized in that wherein the variations in the current are related to one of an amplitude and/or to a duration of supply of the current.
- 8. (Currently Amended) Actuator in accordance with one of the above claim[[s]] 1 or 2, characterized in that it comprises further comprising means for considering adjusting the variable attracting current responsive to the speed of the engine to be a parameter of the operating state of the engine.
- 9. (Currently Amended) Internal combustion engine equipped with an actuator comprising a polarized electromagnet and a magnetic plate switching between a first position close to the electromagnet and a second position, characterized in that the actuator is according to one of the claim[[s]] 1 through 9or 2.